

Comparison of clinical outcome between bare-metal stent and drug-eluting stent implantation in large vessel coronary artery disease

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**Background:** Despite the clinical benefit of drug eluting stent (DES), it has not been clarified whether DES should be used in large coronary artery (over 3.5mm). In this study, we compared the clinical outcome between the lesions treated with bare metal stent (BMS) and DES in large coronary artery. **Methods:** We studied 171 patients and 198 lesions treated with large-size stent (over 3.5mm). Among these lesions, 42 lesions were treated with BMS and 156 lesions were treated with DES (SES 130, PES 26). Clinical characteristics and outcome after PCI were compared between the two groups. **Results:** There was no significant difference in gender and age between the two groups. The severity of lesions defined as AHA/ACC class was comparable between the two groups (A+B1/B2+C, BMS vs DES=48/ 52% vs 39/61%, p=0.31). Stent diameter was greater in BMS than in DES (3.8+/-0.2 vs 3.5+/-0.2mm, p<0.0001) and stent length tended to be shorter in BMS than DES (24+/-13 vs 29+/-17mm, p=0.05). During the follow-up period of 393+/-226 days, target lesion revascularization (TLR) was performed in 7 lesions (3 in BMS and 4 in DES). TLR rate was comparable between the two groups (BMS vs DES=8% vs 3%, p=0.128). Among DES group, the TLR rate tended to be higher in patients treated with PES than that in patients treated with DES (2% vs 8%, p=0.07). **Conclusions:** Our results suggested that implantation of BMS in large coronary artery is safe and has similar outcome compared with DES.